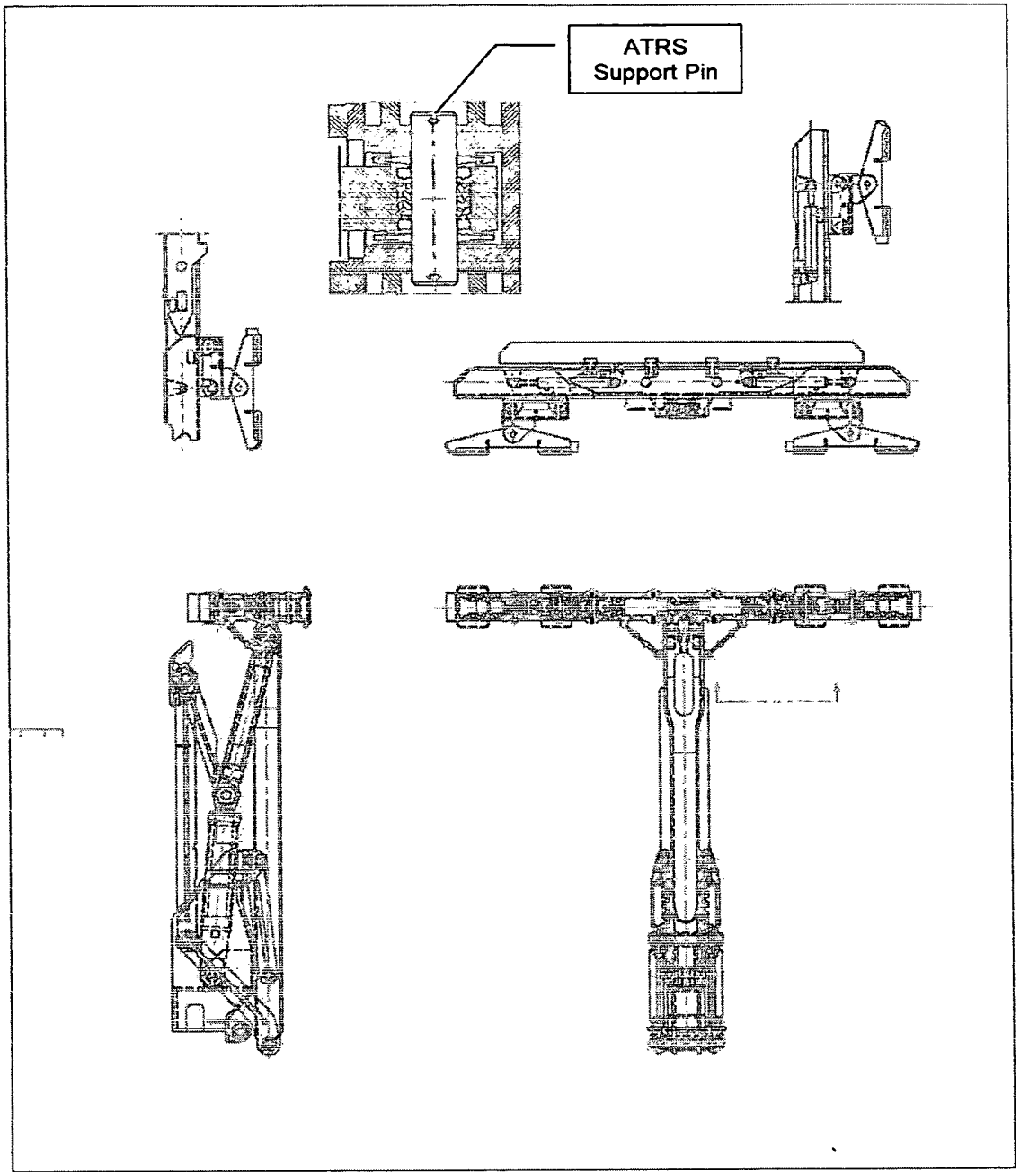


Figure 1 Typical ATRS Arrangement

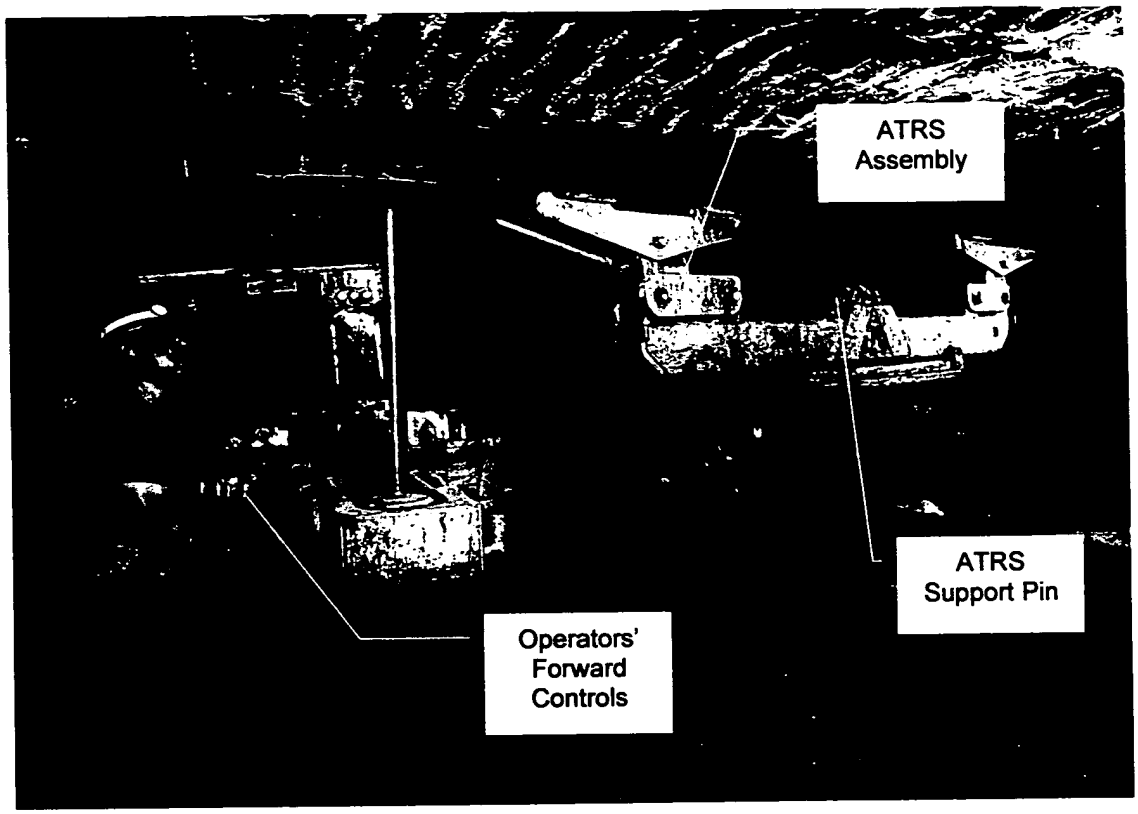


Figure 2 Typical Roof Installation in Low Seam

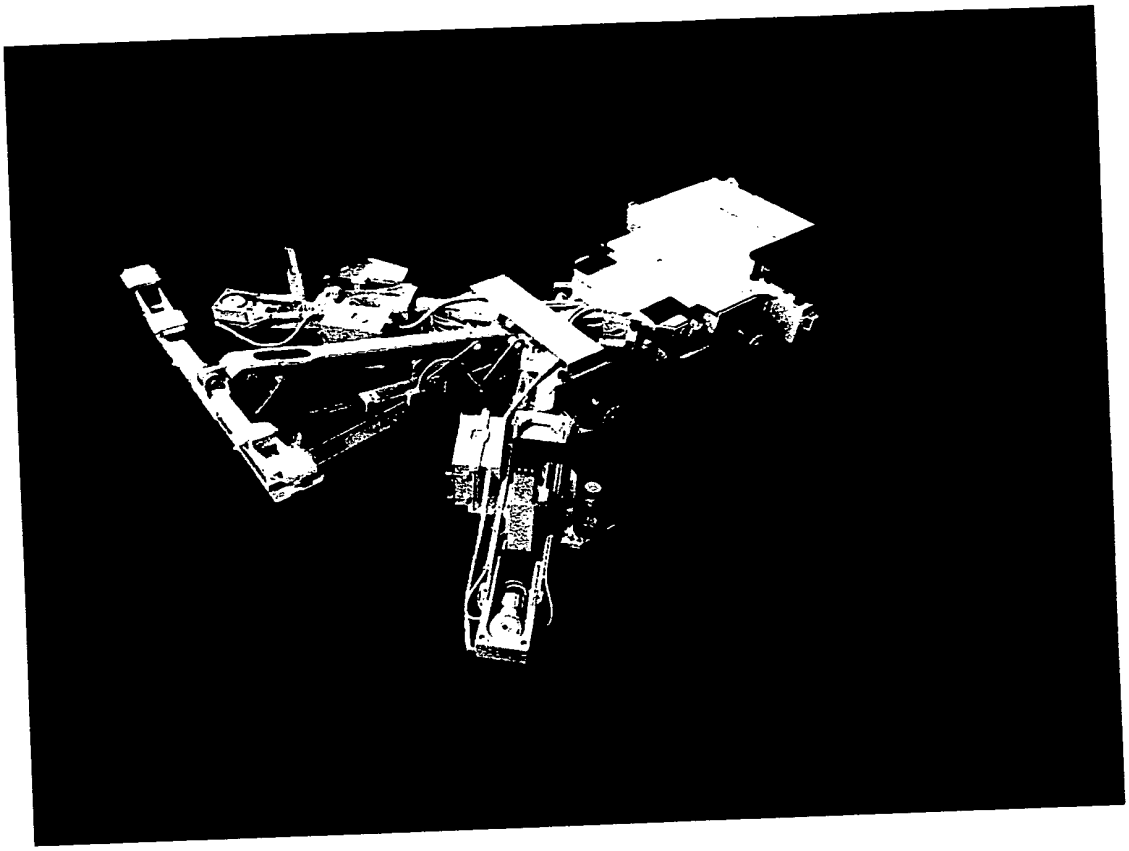


Figure 3 Roof Bolter Assembly

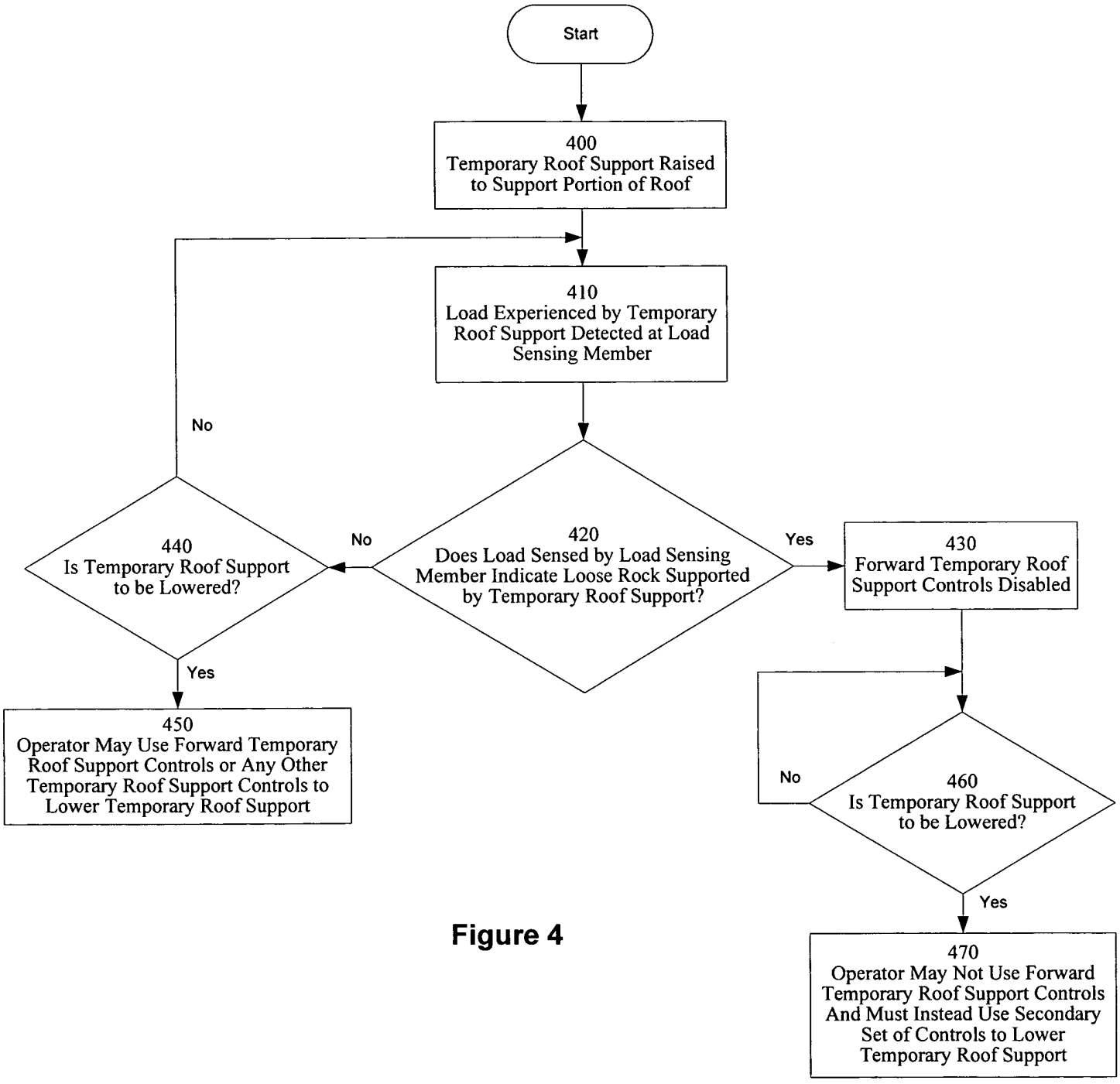

Start
400
Temporary Roof Support Raised to Support Portion of Roof
410
Load Experienced by Temporary Roof Support Detected at Load Sensing Member
420
Does Load Sensed by Load Sensing Member Indicate Loose Rock Supported by Temporary Roof Support?
No
Yes
430
Forward Temporary Roof Support Controls Disabled
440
Is Temporary Roof Support to be Lowered?
No
Yes
450
Operator May Use Forward Temporary Roof Support Controls or Any Other Temporary Roof Support Controls to Lower Temporary Roof Support
460
Is Temporary Roof Support to be Lowered?
No
Yes
470
Operator May Not Use Forward Temporary Roof Support Controls And Must Instead Use Secondary Set of Controls to Lower Temporary Roof Support

Figure 4

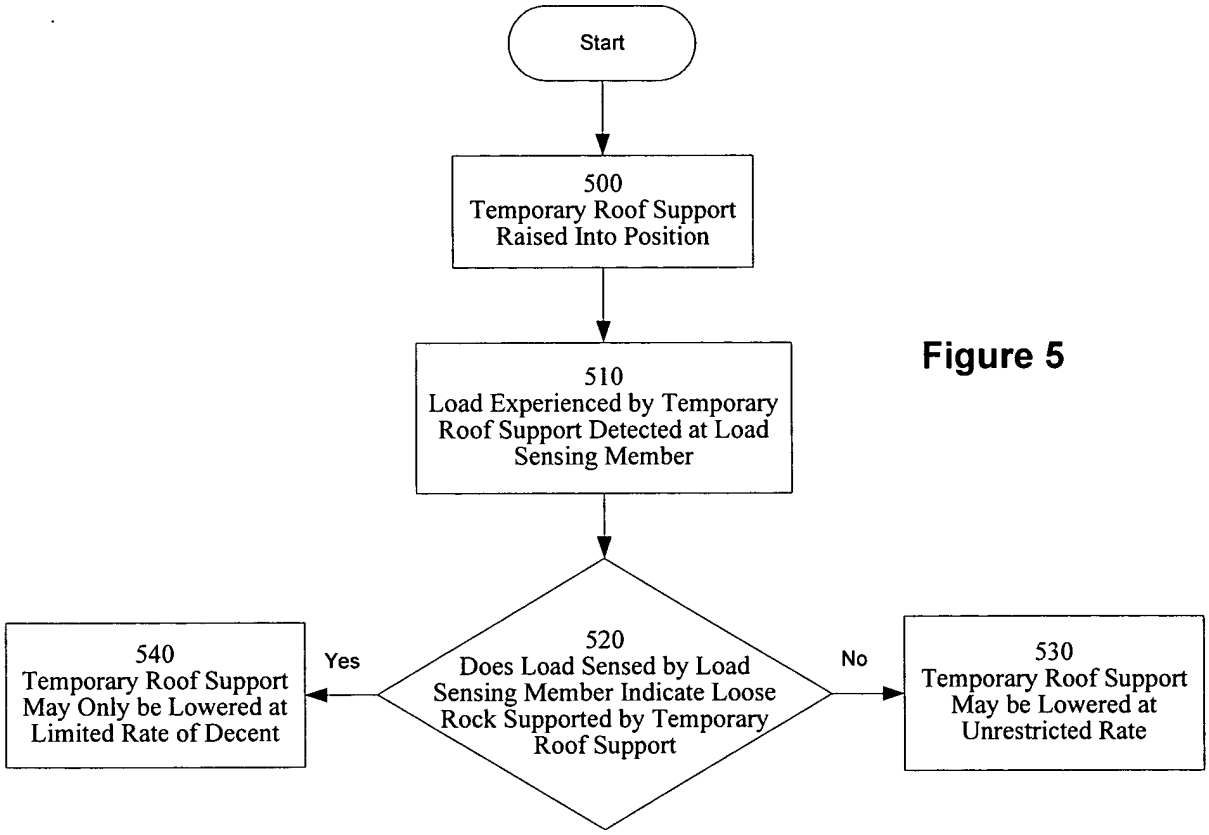

Start
500
Temporary Roof Support Raised Into Position
510
Load Experienced by Temporary Roof Support Detected at Load Sensing Member
520
Does Load Sensed by Load Sensing Member Indicate Loose Rock Supported by Temporary Roof Support
Yes
No
540
Temporary Roof Support May Only be Lowered at Limited Rate of Decent
530
Temporary Roof Support May be Lowered at Unrestricted Rate

Figure 5

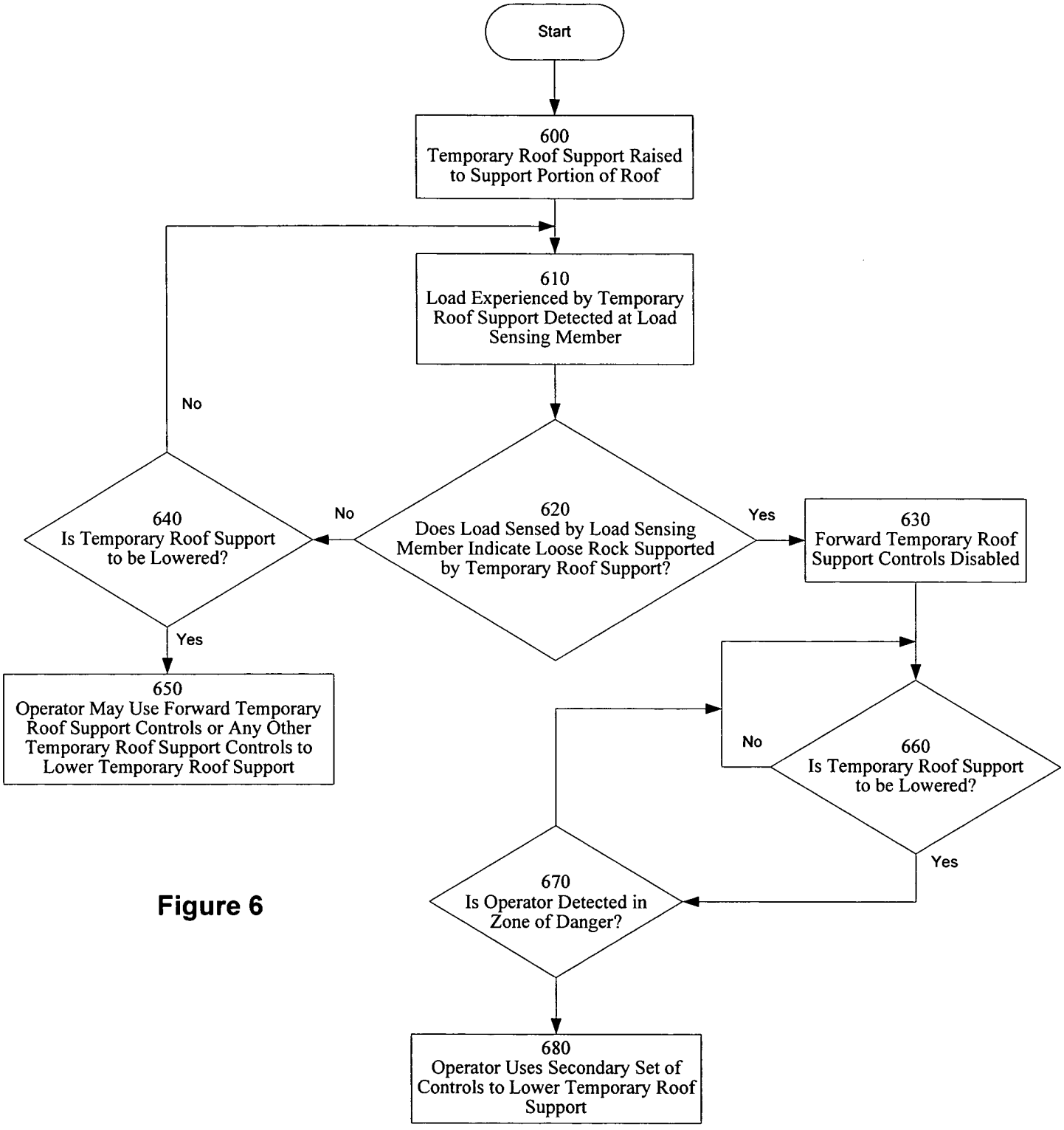

Start
600
Temporary Roof Support Raised to Support Portion of Roof
610
Load Experienced by Temporary Roof Support Detected at Load Sensing Member
620
Does Load Sensed by Load Sensing Member Indicate Loose Rock Supported by Temporary Roof Support?
Yes
630
Forward Temporary Roof Support Controls Disabled
No
640
Is Temporary Roof Support to be Lowered?
No
Yes
650
Operator May Use Forward Temporary Roof Support Controls or Any Other Temporary Roof Support Controls to Lower Temporary Roof Support
660
Is Temporary Roof Support to be Lowered?
No
Yes
670
Is Operator Detected in Zone of Danger?
680
Operator Uses Secondary Set of Controls to Lower Temporary Roof Support

Figure 6

Figure 7

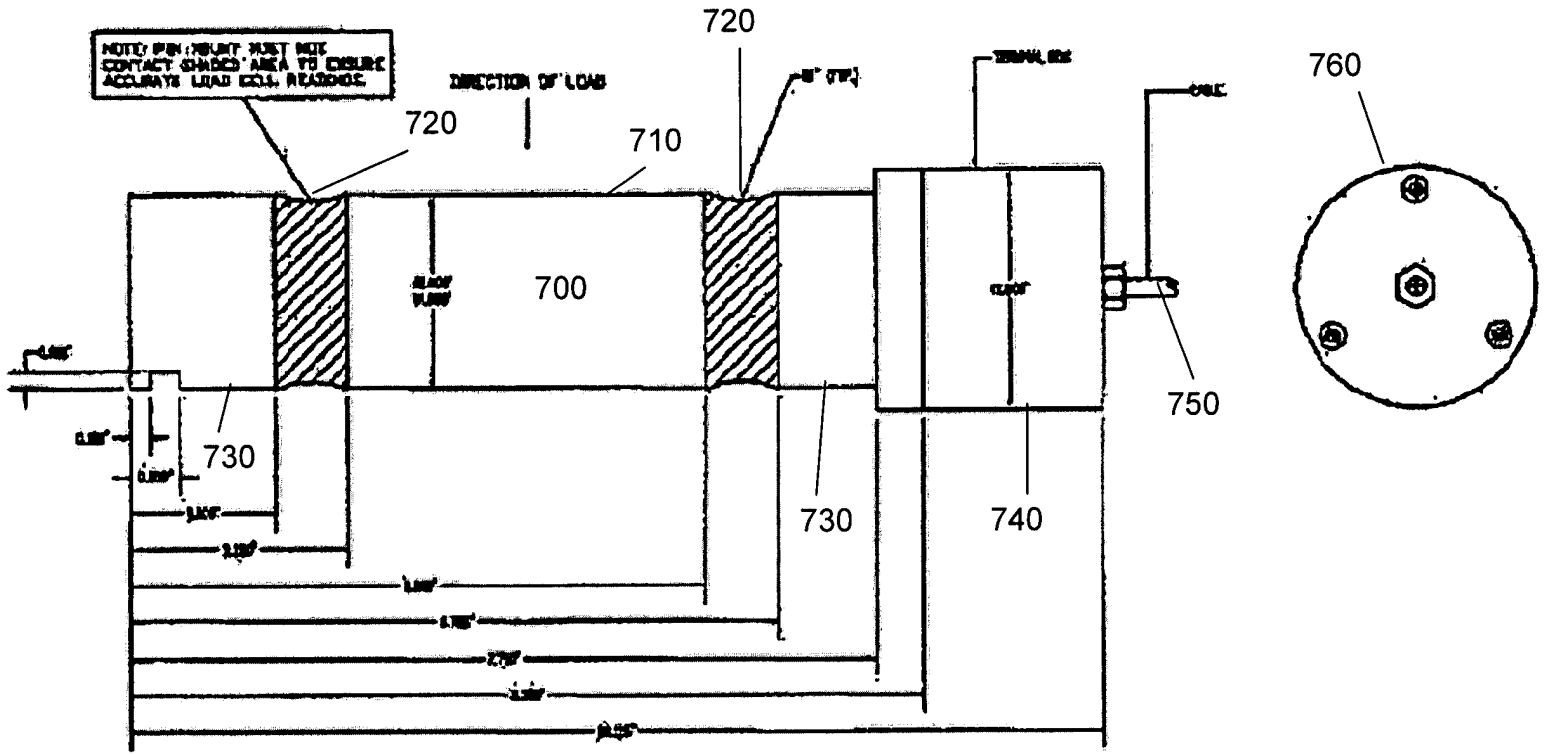
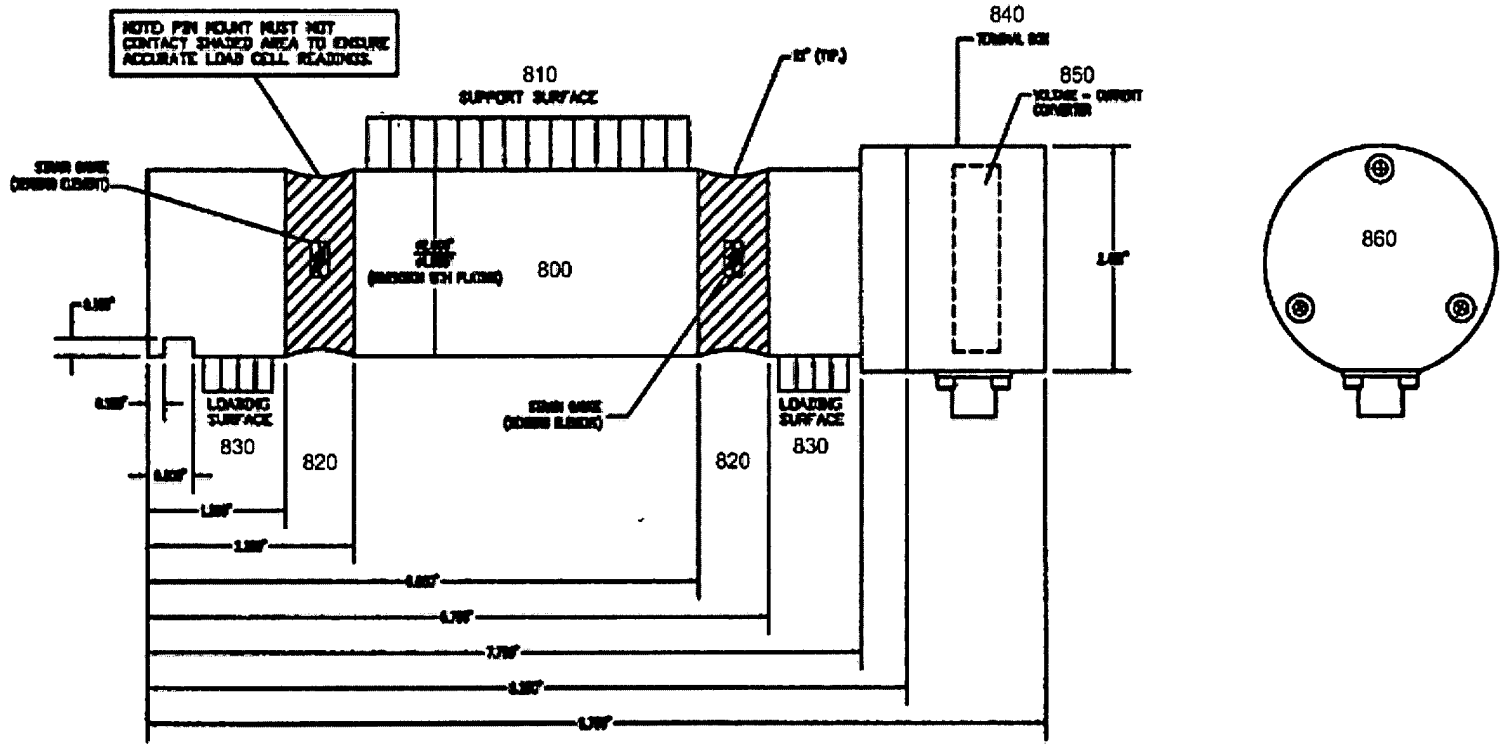


Figure 8



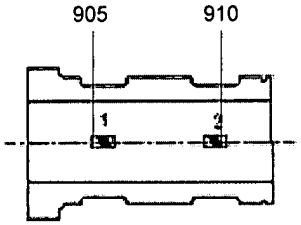
SPECIFICATIONS:

- MATERIAL: SAE 4340 HTSR TO RC 46-48
- ULTIMATE LOAD RATING = 575 kips
- FINISH: ELECTROLESS NICKEL PLATED

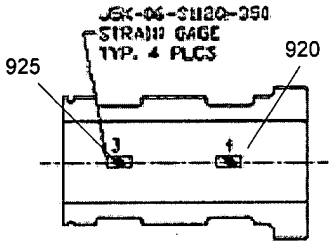
No.	REVISIONS:	BY:	DATE:	CHK. DATE:	DWN. DATE:	TITLE:	ESTIMATED WEIGHT:	SCALE:	SIZE
1	REVISED NOTES	G.W.	AUG 22, 02		AUG 15, 01	MINING MACHINE LOAD PIN DIMENSIONS		1:1	C
				CHK. BY:	DWN. BY:		lbs	DRAWING:	
					G.W.	(NESCO)	KG	S1	1

CANADA

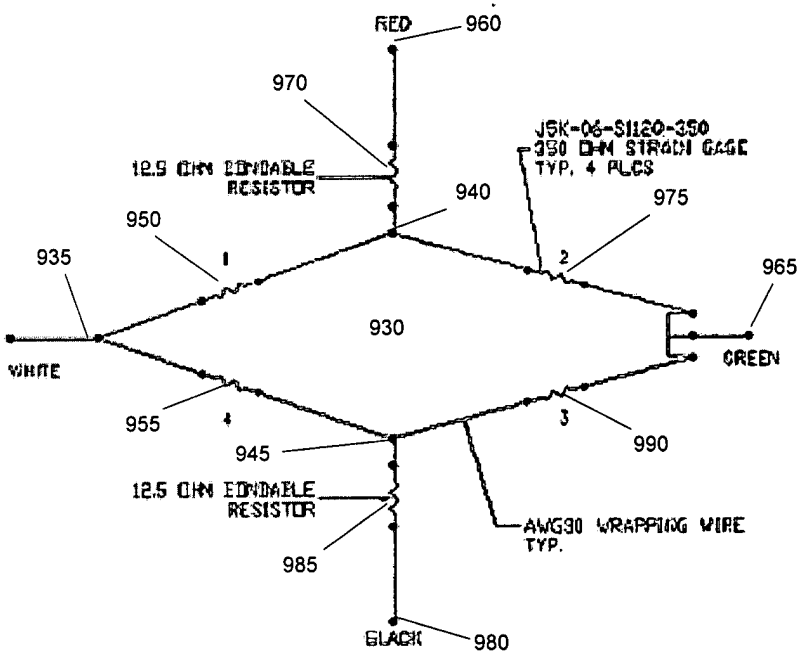
Figure 9



900
LEFT SECTION VIEW



915
RIGHT SECTION VIEW



LOAD PIN GAGING SCHEMATIC

No.	REVISIONS:	BY:	DATE:	CHK. DATE:	DWN. DATE:		TITLE:	ESTIMATED WEIGHT:	SCALE:	SIZE
					DEC 16, 09	MASS LOAD CANADA	PIN LOAD CELL			C
				CHK. BY:	DWN. BY:		TYPICAL WIRING SCHEMATIC	LBS	DRAWING:	
					GW			KG	PIN L/C WIRING	

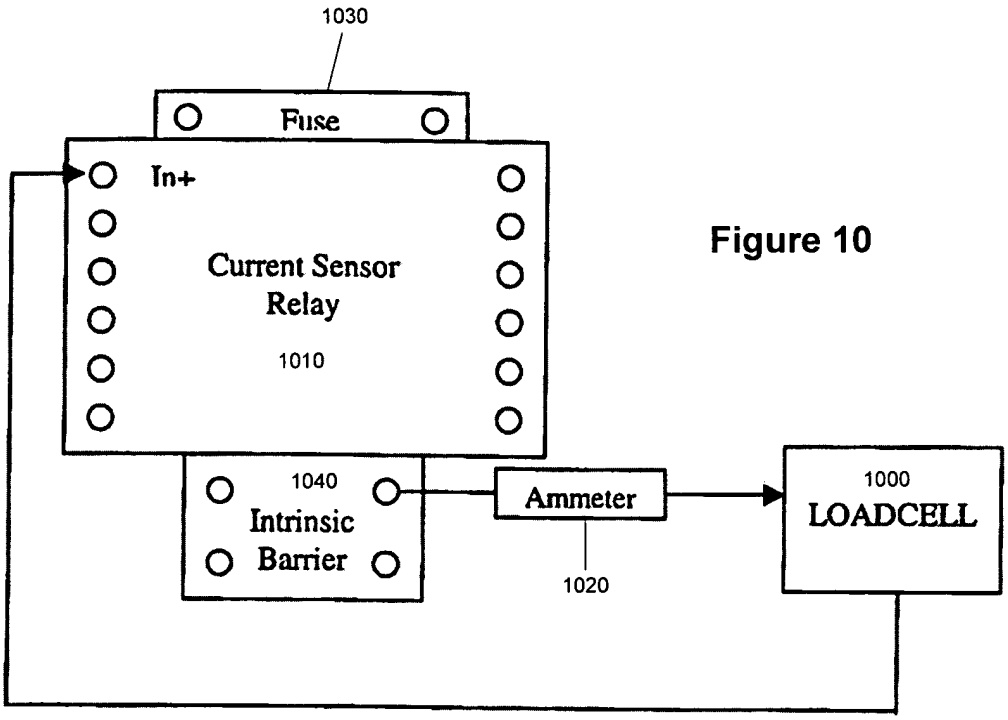

1030
Fuse
In+
Current Sensor
Relay
1010
1040
Intrinsic
Barrier
Ammeter
1020
1000
LOADCELL

Figure 10

WIRING DIAGRAM:

Figure 11

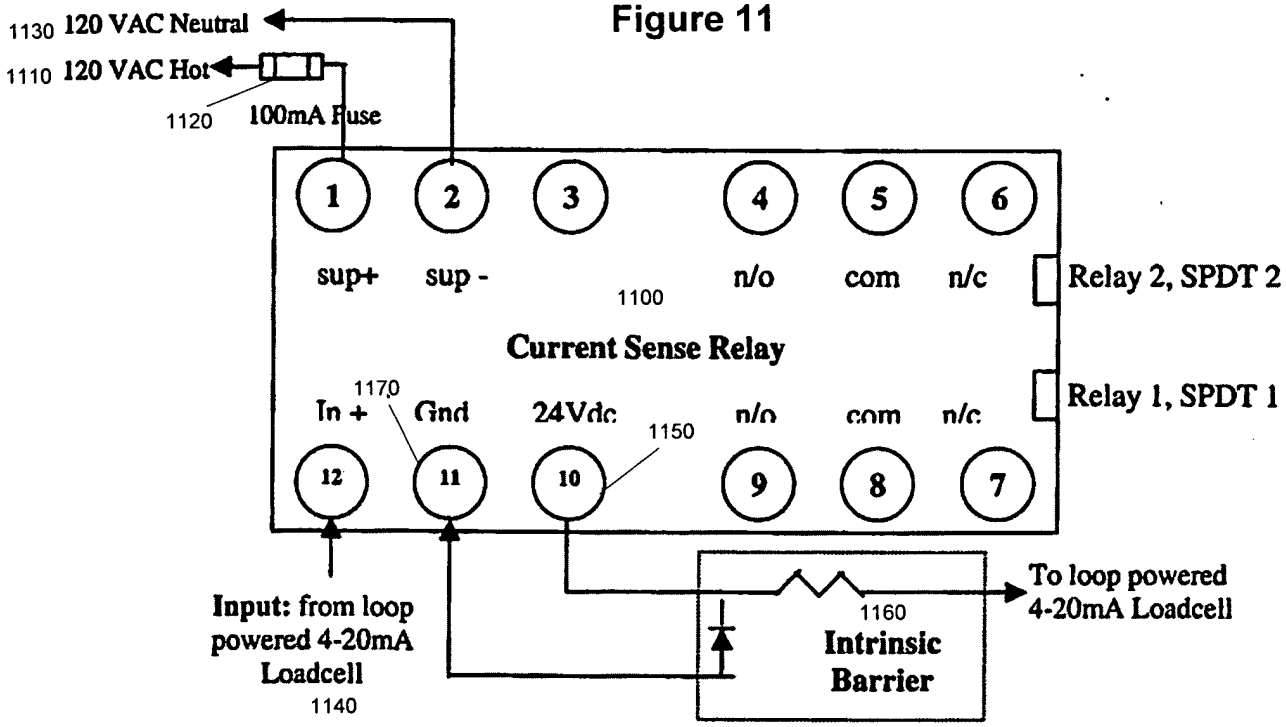
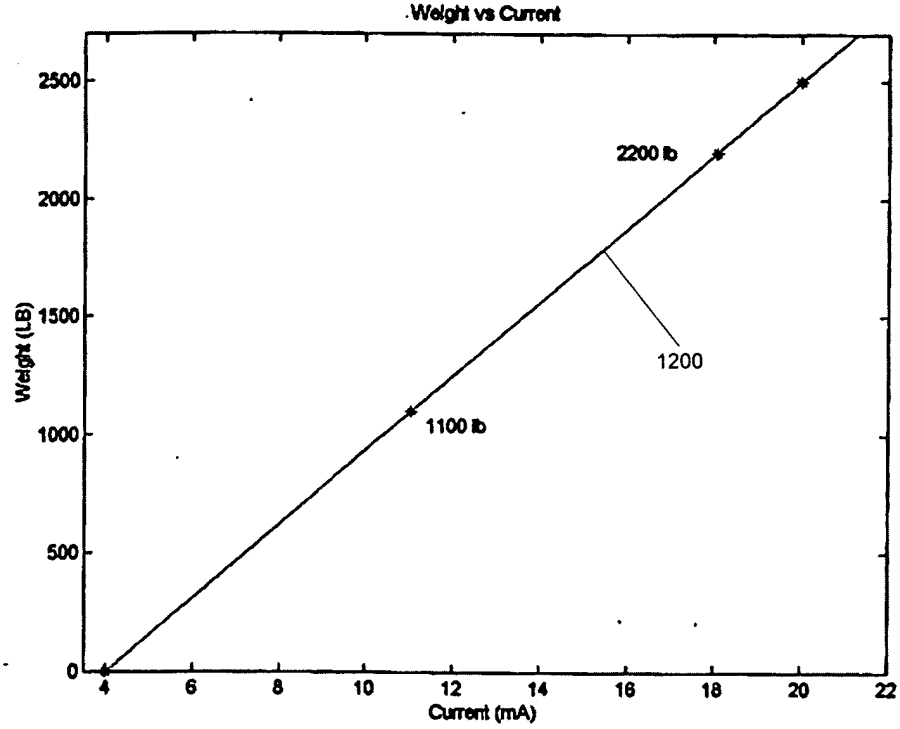


Figure 12


Weight vs Current
Weight (LB)
Current (mA)
2200 lb
1100 lb
1200
0
500
1000
1500
2000
2500
4
6
8
10
12
14
16
18
20
22

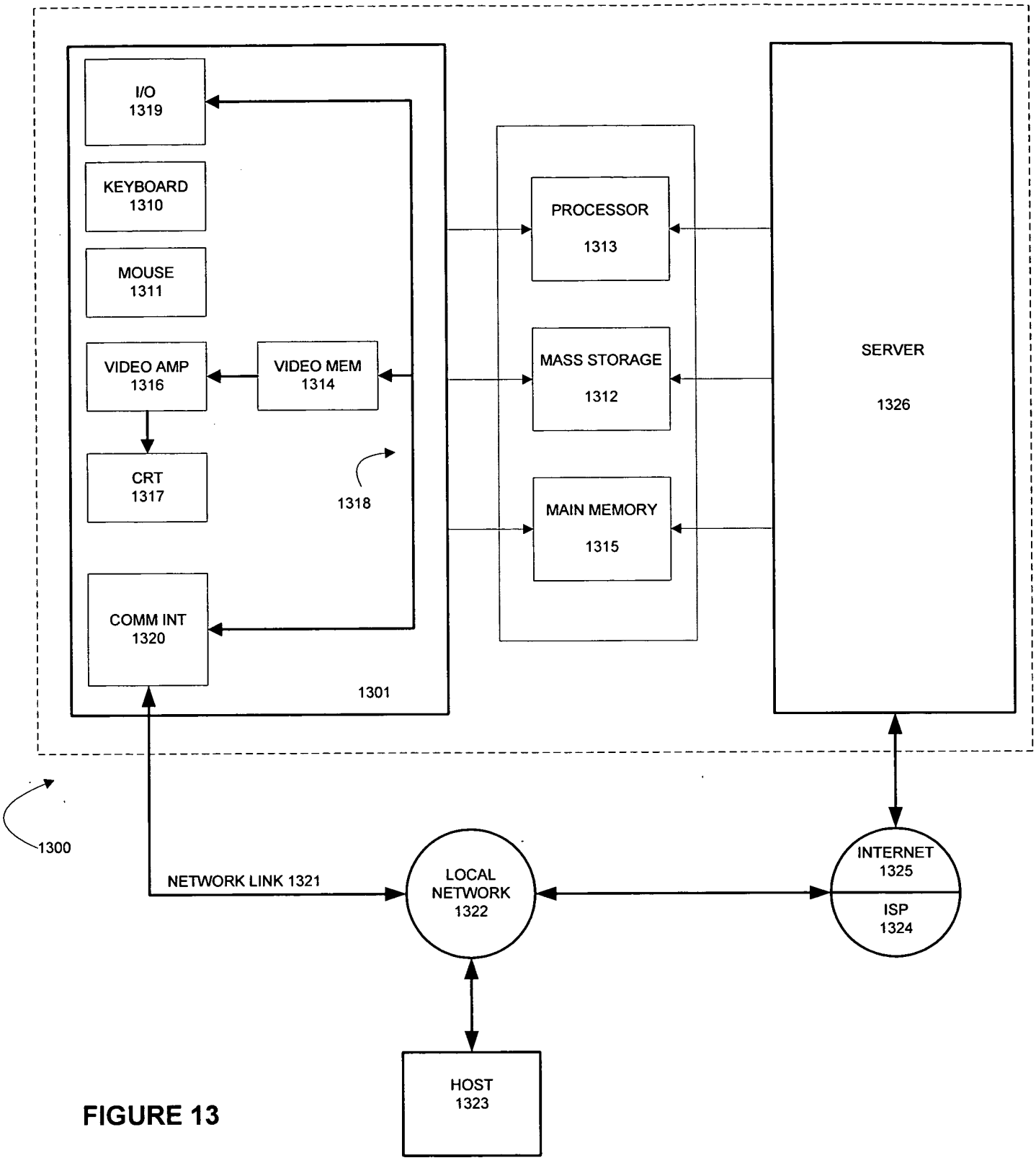

I/O
1319
KEYBOARD
1310
MOUSE
1311
VIDEO AMP
1316
VIDEO MEM
1314
CRT
1317
1318
COMM INT
1320
1301
PROCESSOR
1313
MASS STORAGE
1312
MAIN MEMORY
1315
SERVER
1326
1300
NETWORK LINK 1321
LOCAL
NETWORK
1322
INTERNET
1325
ISP
1324
HOST
1323

FIGURE 13